~~VECP~~

Form C-104
Rev. 2/01

# CONSTRUCTION VALUE ENGINEERING CONCEPT PROPOSAL
# MISSOURI DEPARTMENT OF TRANSPORTATION

**Date** 04/01/2009

**Contract ID** 070928-X01 **Job No.** J0P0928

**County** Madison **Route** 67 **Original Bid Cost** $37,597,624.33

**Contractor** Emery Sapp & Sons **By** Matthew Oesch

**Designed By** Matthew Oesch **Phone** (573) 489-9216

VECP # 09-33

1. **Description of existing requirements and proposed change(s). Advantages/Disadvantages**

   Two crossovers are required from 497+00-663+00 under existing design. Emery Sapp & Sons proposes to eliminate Crossovers #2 & #3-Stage1 from construction. Advantages to the proposal include increased cost savings, fewer lane changes, safer travel for motorist, earlier access to new highways SBL, and may help expedite the completion of the project. Disadvantage is prolonged access to 2.5 miles of divided highway until stage 2 paving is completed from 497+00-508+00.

2. **Estimate of reduction in construction costs.** $62,053.61

3. **Prediction of any effects the proposed change(s) will have on other department costs, such as maintenance and operations.**

   None

4. **Anticipated date for submittal of detailed change(s) of items required by Section 104.6 of the Specifications.**

   04/01/2009
   (date)

5. **Deadline for issuing a change order to obtain maximum cost reduction, noting the effect of contract completion time or delivery schedule.**

   05/15/2009 (date) — Provide ample time to adjust schedule for Stage 1 Paving (effect)

6. **Dates of any previous or concurrent submission of the same proposal.**

   N/A
   (date and/or dates)

**Additional Comments:**

A letter with detailed explanations for the crossover elimination, modification, and striping substitutions is to follow. Spreadsheets detailing cost savings and idem removal lists will be included.

***** Portion Below This Line To Be Filled Out by MoDOT *****

**Comments:** As of May 18, 2009, my understanding is that paint stripe removal will be by water blasting and pavement scarring is no longer a major concern.

Matt Nelson — Submitted By Resident Engineer — 5-19-09 — Date

**Comments:** Approval recommended for 50/50 split

☒ **Approval Recommended**
☐ **Rejection Recommended**

Mark Shelton by L. Luther — District Engineer — 5-20-09 — Date

**Comments:**

☒ **Approval**
☐ **Rejection**

David D. Gross — State Operations Engineer BAW — 5-26-09 — Date

**Distribution:** Resident Engineer, District Operations Engineer, State Operations Engineer
*Value Engineering Administrator - *MoDOT, P.O. Box 270, Jefferson City, MO 65102

March 11, 2009

Mr. Matt Malone, R.E.
Missouri Dept. of Transportation
105 Industrial Dr.
Park Hills, MO 63601

**RE: Value Engineering Proposal #2**
**Rte. 67, Madison County,**
**Job No. J0P0928**

Mr. Malone:

This letter is written in proposition of a Value Engineering Proposal to eliminate the construction of Crossover #2 and #3-Stage 1. Elimination of the two crossovers will increase safety by reducing the number of lane changes navigated by motorist, allow earlier access to the new highway, reduce traffic control maintenance, and create a cost savings of $62,053.61 on the project.

Current design requires Crossovers #2 and #3-Stage1 be constructed once all of the Stage 1 paving has been completed on NBL and SBL between stations 497+00 and 663+00. The crossovers would allow traffic to merge onto and off of the newly paved NBL. The crossovers provide traffic access to roughly 2.5 miles of divided highway.

Under the value engineering proposal construction and use of Crossovers #2 and #3-Stage 1 will be eliminated. The SBL will be paved completely form 497+00- 663+00. Temporary striping will be added to the newly constructed SBL from 495+00 – 663+00 marking the roadway for head to head traffic (Modot's assistance will be required in determining striping sequence for centerline of this section). Now traffic may access the new SBL early regardless of paving completion on the NBL, where under existing design all of the paving and striping must be completed on both NBL and SBL before opened to traffic. Traffic will now remain head to head from where it merges at 493+00 to the temporary connection Stage 1 at 663+00. Since traffic will already be head to head when entering Crossover #3-Stage 1 no added confusion will result from its removal. Traffic disruptions resulting from maintenance to the crossover and its traffic control devises are now eliminated all together. Early traffic access to the SBL may also expedite construction by possibly allowing some Stage 2 work from 660+00-670+00 to be completed in Stage 1. Access to the 2.5 miles of divided highway will be prolonged until Stage 2 paving is completed on the NBL from 497+00 – 508+00.

Concluding, the value engineering proposal will decrease the number of lane changes and amount of traffic control devises motorist are required to interpret and navigate. The proposal will allow traffic earlier access to the new highway and bypass around Cherokee Pass. A substantial cost savings of $62,053.61 will be created by elimination of traffic control devises and construction material required by the crossovers. Finally interference to the traveling public will be decreased providing safer roadways for everyone.

Attached is an excel document detailing the cost savings for the value engineering proposal.

# Valued Engineering Proposal #2: Elimination of Crossover #2 & #3-Stage1

| | |
|---|---|
| Cost Savings from Elimination of Crossover #2 = | $35,328.39 |
| Cost Savings from Elimination of Crossover #3-1 = | $46,830.02 |
| Additioal Temporary Striping Cost = | -$20,104.80 |
| **Total Cost Savings =** | **$62,053.61** |

See additional sheets Crossover #2, Crossover #3-Stage 1, and Additional Striping for cost breakdown

# VALUE ENGINEERING CHECK SHEET

## TYPE OF WORK

(Check one that applies)

- ☐ Bridge/Structure/Footings
- ☐ Drainage Structures (RCP, RCB, CMP's, ect.)
- X TCP/MOT
- ☐ Paving (PCCP, ect.)
- ☐ Grading/MSE Walls
- ☐ Signal/Lighting/ITS
- ☐ Misc. _____

## SUMMARY OF PROPOSAL

(If needed, condense summary to a couple of lines)

This proposal eliminates 2 temporary crossovers, while still maintaining safety and adequate traffic control. Approve as 50/50 split.

## SCANNING OF DOCUMENT

If the proposal is large, please mark or make note, which pages need to be scanned into the database. If there are special instructions, make note of them here.

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